PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5914778

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WESTERN DIGITAL TECHNOLOGIES, INC.	09/19/2019

RECEIVING PARTY DATA

Name:	DDN FIRECREST, INC.
Street Address:	2929 PATRICK HENRY DR.
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95054

PROPERTY NUMBERS Total: 14

Property Type	Number
Application Number:	13419641
Application Number:	15409276
Application Number:	15441248
Application Number:	15603414
Application Number:	15626101
Application Number:	15697152
Application Number:	15697621
Application Number:	15700912
Application Number:	15887960
Application Number:	15887971
Application Number:	16234884
Application Number:	16445152
Application Number:	16447893
Application Number:	16562048

CORRESPONDENCE DATA

Fax Number: (408)288-7542

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 4082887588

USPTO@STEVENSLAWGROUP.COM Email:

> **PATENT** REEL: 051535 FRAME: 0015

505867950

Correspondent Name: STEVENS LAW GROUP

Address Line 1: 1754 TECHNOLOGY DRIVE STE 226
Address Line 4: SAN JOSE, CALIFORNIA 95110

ATTORNEY DOCKET NUMBER:	INTL-00000
NAME OF SUBMITTER:	DAVID R. STEVENS
SIGNATURE:	/David R. Stevens/
DATE SIGNED:	01/16/2020

Total Attachments: 13

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INTELLECTUAL PROPERTY ASSIGNMENT

This INTELLECTUAL PROPERTY ASSIGNMENT (this "<u>Assignment</u>") is entered into and dated as of November 19, 2019, by and among Western Digital Technologies, Inc. ("<u>Seller</u>"), HGST, Inc. ("<u>Selling Entity</u>," and together with Seller, the "<u>Assignors</u>," and each individually, an "<u>Assignor</u>") and DDN Firecrest, Inc. (the "<u>Assignee</u>").

WHEREAS, Assignee, Seller and DataDirect Networks, Inc. are parties to that certain Asset Purchase Agreement, dated as of September 19, 2019 (the "APA"), pursuant to which, among other things, Seller agreed to assign, or to cause one or more of the Selling Entities to assign, to Assignee and/or its Affiliates all of its or their rights, title and interest in and to the Seller Assigned IP (as defined below), including the assets set forth on Schedules A, B, and C attached hereto.

WHEREAS, Seller is the direct or indirect beneficial owner of all of the outstanding capital stock or other equity interests, as applicable, of Selling Entity.

NOW, THEREFORE, in order to consummate the transactions contemplated by the APA and for the consideration set forth therein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties, intending to be legally bound, agree as follows:

- 1. <u>Capitalized Terms</u>. Capitalized terms used but not defined in this Assignment shall have the meanings ascribed to such terms in the APA.
- Assignment of Intellectual Property Rights. Assignors hereby irrevocably and unconditionally sell, assign, transfer, convey and deliver to Assignee and Assignee hereby acquires from such Assignors, all right, title, entitlement, and interest in, to and under all Intellectual Property Assets, including without limitation (a) the patents and patent applications identified in Schedule A (collectively, the "Patents") and all patent applications and patents derived therefrom and issuing therefrom, throughout the world, including without limitation, renewals, extensions, continuations-in-part, reissues. divisions. continuations. reexaminations thereof in the United States (and their international counterparts); (b) the trademarks identified in Schedule B (collectively, the "Trademarks") together with (i) the goodwill of the business symbolized by and associated with the Trademarks and (ii) all applications for registration, registrations, renewals and statements of use with respect to the Trademarks, (c) the Internet domain names identified in Schedule C (collectively, the "Domain Names") and all registrations and renewals thereof, and (d) except to the extent subject to existing Encumbrances (including all existing licenses), all rights to collect royalties, and proceeds in connection with any of the foregoing Intellectual Property Assets, all rights to sue and bring other claims for, and recover damages in connection with, past, present and future infringement, misappropriation or other violation thereof, and all other claims relating to any such Intellectual Property Assets (regardless of whether arising prior to, as of, or after the date hereof, known or unknown), and all associated rights in, to or under any of the foregoing in any jurisdiction throughout the world, whether now or hereafter existing (collectively the "Seller Assigned IP").

- 3. <u>Further Assurances</u>. Assignors hereby covenants that they will, upon reasonable request by Assignee (or its successors or assigns), and at Assignee's sole costs and expense, do, execute, acknowledge and deliver any and all such other further acts, assignments, transfers, affidavits, declarations, oaths, exhibits, assignments, powers of attorney and/or other agreements or instruments of further assurance, approvals and consents as Assignee (or its successors or assigns) reasonably may require to assist Assignee's efforts to confirm, effect, record, perfect, or maintain, protect and enforce the rights assigned herein.
- 4. <u>Power of Attorney</u>. In the event Assignors are unavailable or unable to provide Assignee with further assistance as set forth in Section 3, Assignors hereby designate and appoint Assignee and its duly authorized officers and agents, as Assignors' agents and attorneys-in-fact to act for and on Assignors' behalf, solely to execute and file any such document or documents and to do all other lawfully permitted acts to confirm and perfect the rights assigned hereunder with the same legal force and effect as if executed by Assignors.

5. Miscellaneous.

- (a) <u>Terms of the APA</u>. In the event of any conflict or inconsistency between the terms of the APA and the terms of this Assignment, the terms of the APA shall govern.
- (b) <u>Governing Law</u>. This Assignment shall be governed by and construed in accordance with the internal laws of the State of Delaware without giving effect to any choice or conflict of law provision or rule (whether of the State of Delaware or any other jurisdiction).
- (c) <u>Severability</u>. If any term or other provision of this Assignment is invalid, illegal, or incapable of being enforced by any law or public policy, all other terms or provisions of this Assignment shall nevertheless remain in full force and effect so long as the economic or legal substance of the transfer of the Seller Assigned IP is not affected in any manner materially adverse to any party. Upon such determination that any term or other provision is invalid, illegal, or incapable of being enforced, the parties hereto shall negotiate in good faith to modify this Assignment so as to effect the original intent of the parties as closely as possible in an acceptable manner in order that the transfer of the Seller Assigned IP is consummated as originally contemplated to the greatest extent possible.
- (d) <u>Counterparts</u>. This Assignment may be executed in one or more counterparts, each of which will be deemed to be an original copy of this Assignment and all of which, when taken together, will be deemed to constitute one and the same agreement. A facsimile or emailed copy of this Assignment signed by the parties may be treated as an original for all purposes.

[Signature Pages Follow]

IN WITNESS WHEREOF, this Assignment has been duly executed by the undersigned as of the date first above written.

ASSIGNOR:	
WESTERN DIGITAL TECHNOLOGIES, INC.	
Name: Michael D. Cordano Title: President and Chief Operating Officer	
ASSIGNOR:	
HGST, INC.	
Name: Title:	
ASSIGNEE:	
DDN FIRECREST, INC.	
Name:	

REEL: 051535 FRAME: 0019

ASSIGNOR:
WESTERN DIGITAL TECHNOLOGIES, INC.
Name:
Title:
ASSIGNOR:
HGST, INC.
Name: Brandi Steege
Title: President and Secretary
ASSIGNEE:
DDN FIRECREST, INC.

Name: Title:

IN WITNESS WHEREOF, this Assignment has been duly executed by the undersigned as of the date first above written.

IN WITNESS WHEREOF, this Assignment has been duly executed by the undersigned as of the date first above written.

ASSIGNOR:	
WESTERN DIGITAL TECHNOLO INC.	OGIES,
Name: Title:	
ASSIGNOR:	
HGST, INC.	
Name: Title:	
ASSIGNEE:	
DDN FIRECREST, INC.	
Ma Bay	

Name: Alex Bouzari

Title: Chief Executive Officer

Signature Page to IP Assignment

Schedule A

Patents

Title	Inventor(s)	Туре	Application No.	Filing Date (yyyy-mm-dd)	Patent No.	Issue Date (yyyy-mm-dd)	Status
SCALABLE METADATA ACCELERATION WITH DATAPATH METADATA BACKUP	Wen-Chen Cheng Rajesh Nair	PRI	13/419,641	2012-03-14	8,407,437	2013-03-26	Issued
PERSISTENT FILE HANDLE OBJECT CONTAINER MEMORY EXPIRY	Senthilkumar Narayanasamy Koushik Rajagopal Praveen Kumar Loganathan	PRI	15/409,276	2017-01-18	10,095,700	2018-10-09	Issued
INTELLIGENT FLASH ARCHITECTURE	Shailendra Tripathi	PRI	15/441,248	2017-02-24	9,823,856	2017-11-21	Issued
DYNAMIC MEMORY SHRINKER FOR METADATA OPTIMIZATION	Shailendra Tripathi Danny McGregor	PRI	15/603,414	2017-05-23	10,078,642	2018-09-18	Issued
SCALABLE AND PERSISTENT L2 ADAPTIVE REPLACEMENT CACHE	Shailendra Tripathi Daniel McGregor Enyew Tan	PRI	15/626,101	2017-06-17	10,061,775	2018-08-28	Issued
PREDICTABLE CLIENT LATENCY VIA BACKGROUND FILE SYSTEM OPERATIONS	Shailendra Tripathi Enyew Tan	PRO	62/546,080	2017-08-16			Expired
PREDICTABLE CLIENT LATENCY VIA BACKGROUND FILE SYSTEM OPERATIONS	Shailendra Tripathi Enyew Tan	ORD	15/697,152	2017-09-06			Pending
PREDICTABLE ALLOCATION LATENCY IN FRAGMENTED LOG STRUCTURED FILE SYSTEMS	Shailendra Tripathi	PRO	62/546,097	2017-08-16			Expired
PREDICTABLE ALLOCATION LATENCY IN FRAGMENTED LOG STRUCTURED FILE SYSTEMS	Shailendra Tripathi	ORD	15/697,621	2017-09-07			Allowed
INTELLIGENT REDUNDANT ARRAY OF INDEPENDENT DISKS (IRAID)	Shailendra Tripathi Sreekanth Garigala	PRO	62/546,114	2017-08-16			Expired

A-1 [Schedule A to IP Assignment]

Title	Inventor(s)	Туре	Application No.	Filing Date (yyyy-mm-dd)	Patent No.	Issue Date (yyyy-mm-dd)	Status
INTELLIGENT REDUNDANT ARRAY OF INDEPENDENT DISKS (IRAID)	Shailendra Tripathi Sreekanth Garigala	ORD	15/700,912	2017-09-11			Pending
INTELLIGENT REDUNDANT ARRAY OF INDEPENDENT DISKS WITH HIGH PERFORMANCE RECOMPACTION	Shailendra Tripathi Sreekanth Garigala Sandeep Sebe	CIP	15/887,960	2018-02-02			Allowed
INTELLIGENT REDUNDANT ARRAY OF INDEPENDENT DISKS WITH RESILVERING BEYOND BANDWIDTH OF A SINGLE DRIVE	Shailendra Tripathi Sreekanth Garigala Sandeep Sebe	CIP	15/887,971	2018-02-02			Pending
DATA REDUNDANCY RECONFIGURATIO N USING LOGICAL SUBUNITS	Venkata Ramprasad Darisa Abhishek Agarwal Angshuman Devchoudhury	PRI	16/234,884	2018-12-28			Pending
DYNAMIC ALLOCATION OF STORAGE FROM A SHARED STORAGE POOL ACROSS DIFFERENT REDUNDANCY LEVELS	Nabakishore Munda Shailendra Tripathi	PRI	16/445,152	2019-06-18			Pending
FULLY REPLACING AN EXISTING RAID GROUP OF DEVICES WITH A NEW RAID GROUP OF DEVICES	Shailendra Tripathi	PRI	16/447,893	2019-06-20			Pending
PREDICTABLE SYNCHRONOUS DATA REPLICATION	Kartheek Reddy Daida		201941028050	2019-07-12			Abandoned
INTELLIGENT RESYNC ENGINE FOR SYNCHRONOUS REPLICATION	Kartheek Reddy Daida		16/562,048	2019-09-05			Pending

Schedule B

Trademarks

Mark	Country	Application Number	Filed Date (yyyy-mm-dd)	Registration Number	Registration Date (yyyy-mm-dd)	Status
INTELLICARE	European Union	018006005	2019-01-04			Pending
INTELLICARE	United States	88247507	2019-01-02			Pending
INTELLICARE	Australia	1976803	2018-12-20			Pending
INTELLICARE	Canada	1937401	2018-12-20			Pending
INTELLICARE	Hong Kong	304780396	2018-12-21	304780396	2019-07-05	Registered
INTELLICARE	Iceland	V0111550	2018-12-20			Pending
INTELLICARE	India	4034136	2018-12-21	4034136	2019-06-13	Registered
INTELLICARE	Israel	312114	2018-12-27			Pending
INTELLICARE	Japan	2018-158192	2018-12-20			Pending
INTELLICARE	Republic of Korea	40-2018-179459	2018-12-20			Pending
INTELLICARE	Malaysia	TM2018018285	2018-12-21			Pending
INTELLICARE	Malaysia	TM2018018293	2018-12-21			Pending
INTELLICARE	New Zealand	1110337	2018-12-20			Published
INTELLICARE	Norway	201817276	2018-12-20			Pending
INTELLICARE	Russian Federation	2018756613	2018-12-20			Pending
INTELLICARE	Singapore	40201826606X	2018-12-21			Pending
INTELLICARE	Switzerland	83415/2018	2018-12-20			Pending
INTELLICARE	Taiwan	107082256	2018-12-20			Pending
INTELLICARE	Thailand	180145547	2018-12-28			Pending
INTELLICARE	United Kingdom	UK00003362326	2018-12-20	3362326	2018-12-20	Registered
INTELLICARE	China	35451599	2018-12-20			Pending
INTELLICARE	China	35438998	2018-12-20			Pending
INTELLIFLASH	Australia	1976757	2018-12-20			Published
INTELLIFLASH	Canada	1937396	2018-12-20			Pending
INTELLIFLASH	Hong Kong	304780404	2018-12-21	304780404	2019-07-05	Registered
INTELLIFLASH	Iceland	V0111548	2018-12-20			Pending
INTELLIFLASH	India	4036426	2018-12-24	4036426	2019-06-09	Registered
INTELLIFLASH	Israel	312104	2018-12-26			Pending
INTELLIFLASH	Japan	2018-158190	2018-12-20			Pending

PATENT

REEL: 051535 FRAME: 0024

Mark	Country	Application Number	Filed Date (yyyy-mm-dd)	Registration Number	Registration Date (yyyy-mm-dd)	Status
INTELLIFLASH	Republic of Korea	40-2018-179458	2018-12-20			Pending
INTELLIFLASH	Malaysia	TM2018018294	2018-12-21			Pending
INTELLIFLASH	Malaysia	TM2018018297	2018-12-21			Pending
INTELLIFLASH	New Zealand	1110260	2018-12-20			Published
INTELLIFLASH	Norway	201817274	2018-12-20			Pending
INTELLIFLASH	Russian Federation	2018756615	2018-12-20			Pending
INTELLIFLASH	Singapore	40201826354Y	2018-12-20			Pending
INTELLIFLASH	Switzerland	83417/2018	2018-12-20			Pending
INTELLIFLASH	Taiwan	107082258	2018-12-20			Pending
INTELLIFLASH	Thailand	180145539	2018-12-28			Pending
INTELLIFLASH	United Kingdom	UK00003362328	2018-12-20	3362328	2018-12-20	Registered
INTELLIFLASH	European Union	018006002	2019-01-04			Pending
INTELLIFLASH	China	35454234	2018-12-20			Published
INTELLIFLASH	China	35445107	2018-12-20			Pending
INTELLIFLASH	United States	86400865	2014-09-20	4692622	2015-02-24	Registered
INTELLIFLASH	United States	88247488	2019-01-02			Published
INTELLIFLASH	United States	88247497	2019-01-02			Pending
	United States	88247499	2019-01-02			Pending
	China	35451628	2018-12-20			Pending
	China	35448732	2018-12-20			Pending

Mark	Country	Application Number	Filed Date (yyyy-mm-dd)	Registration Number	Registration Date (yyyy mm-dd)	Status
	European Union	018006006	2019-01-04			Pending
	Australia	1976771	2018-12-20			Pending
	Canada	1937400	2018-12-20			Pending
	Hong Kong	304781575	2018-12-24			Pending
	Iceland	V0111549	2018-12-20			Pending
	India	4034135	2018-12-21			Rejected
	Israel	312112	2018-12-27			Pending

Mark	Country	Application Number	Filed Date (yyyy-mm-dd)	Registration Number	Registration Date (yyyy-mm-dd)	Status
	Japan	2018-158191	2018-12-20			Pending
	Republic of Korea	40-2018-179457	2018-12-20			Pending
	Malaysia	TM2018018289	2018-12-21			Pending
	Malaysia	TM2018018292	2018-12-21			Pending
	New Zealand	1110279	2018-12-20			Published
	Norway	201817275	2018-12-20			Pending
	Russian Federation	2018756614	2018-12-20			Pending

Mark	Country	Application Number	Filed Date (yyyy-mm-dd)	Registration Number	Registration Date (yyyy-mm-dd)	Status
	Singapore	40201826356S	2018-12-20			Pending
	Switzerland	83416/2018	2018-12-20			Pending
	Taiwan	107082257	2018-12-20			Pending
	Thailand	180145538	2018-12-28			Pending
	United Kingdom	UK00003362327	2018-12-20	3362327	2018-12-20	Registered
TEGILE	United States	85895698	2013-04-04	4517223	2014-04-22	Registered
ZEBI	United States	85895742	2013-04-04	4477209	2014-02-04	Registered

<u>Unregistered Marks and Unregistered Intellectual Property</u>:

Lifetime Storage.

Flash Five Commitment.

Schedule C

Domain Names

Domain Name	Expiration Date (yyyy-mm-dd)
tegile.com	2019-11-22
tegile.us (not used anymore)	2020-09-27
tegilecapital.com (not used anymore)	2020-10-10

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[Schedule C to IP Assignment]

RECORDED: 01/16/2020